

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A method for optimizing data transmission in a wireless digital communication system including a base station and a plurality of user equipment (UEs), wherein a first subset of the UEs have pending downlink transmissions and a second subset of the UEs do not have pending downlink transmissions, the method comprising:

(a) receiving blocks of downlink data at the base station for distribution to the plurality of UEs in the first subset;

(b) transmitting from the base station to at least one UE in the first subset ~~having a pending downlink transmission~~, a request ~~for a~~ to begin downlink channel quality ~~measurement~~ measurements, whereby the base station does not transmit a request to begin downlink channel quality measurements to the UEs in the second subset due to not having pending downlink transmissions;

(c) the at least one UE in the first subset measuring and reporting the downlink channel quality to the base station;

(d) the at least one UE in the first subset receiving a downlink physical channel allocation signal from the base station;

(e) the at least one UE in the first subset setting up transmission parameters based on the downlink physical channel allocation; and

(f) the at least one UE in the first subset receiving blocks of the downlink data from the base station in accordance with the downlink physical channel allocation.

2. (currently amended): The method of claim 1 wherein the allocation signal indicates a particular coding rate, modulation type and at least one allocated time slot.

3. (currently amended): The method of claim 1 further including:
(g) prioritizing transmissions to be made from the base station to respective ones of the plurality of UEs in the first subset having pending downlink transmissions.

4. (currently amended): A wireless digital communication system for optimizing data transmission, the system comprising:

(a) a plurality of user equipment (UEs), wherein a first subset of the UEs have pending downlink transmissions and a second subset of the UEs do not have pending downlink transmissions; and

(b) a base station in communication with the UEs, the base station further comprising:

(b1) means for receiving blocks of downlink data for distribution to the plurality of UEs;

(b2) means for transmitting to at least one of the UEs in the first subset having a pending downlink transmission, a request ~~for a~~ to begin downlink channel quality ~~measurement~~ measurements, whereby the base station does not transmit a request to begin downlink channel quality measurements to the UEs in the second subset due to not having pending downlink transmissions;

(b3) means for receiving from the at least one UE in the first subset having a pending downlink transmission, a report of the results of the downlink channel quality ~~measurement~~ measurements;

(b4) means for transmitting to the at least one UE in the first subset ~~having a pending downlink transmission~~, a downlink physical channel allocation signal; and

(b5) means for transmitting to the at least one UE in the first subset ~~having a pending downlink transmission~~, blocks of the downlink data from the base station in accordance with the downlink physical channel allocation signal.

5. (currently amended): The system of claim 4 wherein the allocation signal indicates a particular coding rate, modulation type and at least one allocated time slot.

6. (currently amended): The system of claim 4 wherein the base station further includes:

(b6) means for prioritizing transmissions to be made to respective ones of the plurality of UEs in the first subset ~~having pending downlink transmissions~~.

7. (currently amended): A method for optimizing data transmission in a wireless digital communication system including a base station and a plurality of wireless devices, wherein a first subset of the wireless devices have pending downlink transmissions and a second subset of the wireless devices do not have pending downlink transmissions, the method comprising:

(a) receiving blocks of downlink data at the base station for distribution to a plurality of wireless devices in the first subset;

(b) transmitting from the base station to a wireless device in the first subset ~~having a pending downlink transmission~~, a request ~~for a~~ to begin downlink channel quality ~~measurement~~ measurements, whereby the base station does not transmit a request to begin downlink channel quality measurements to the wireless devices in

the second subset due to not having pending downlink transmissions;

(c) the wireless device in the first subset ~~having a pending downlink transmission~~ measuring and reporting the downlink channel quality to the base station;

(d) the base station signaling a downlink physical channel allocation to the wireless device in the first subset ~~having a pending downlink transmission~~;

(e) the wireless device in the first subset ~~having a pending downlink transmission~~ setting up transmission parameters based on the downlink physical channel allocation; and

(f) the wireless device in the first subset ~~having a pending downlink transmission~~ receiving blocks of the downlink data from the base station in accordance with the downlink physical channel allocation.

8. (currently amended): The method of claim 7 wherein the signaled allocation indicates a particular coding rate, modulation type and at least one allocated time slot.

9. (currently amended): The method of claim 7 further including:

(g) prioritizing transmissions to be made from the base station to respective ones of the plurality of wireless devices in the first subset ~~having pending downlink transmissions~~.

10. (currently amended): A method for optimizing data transmission in a wireless digital communication system including a base station and a plurality of user equipment (UEs), wherein a first subset of the UEs have pending downlink transmissions and a second subset of the UEs do not have pending downlink transmissions, the method comprising:

(a) receiving blocks of downlink data at the base station for distribution to a plurality of UEs in the first subset;

(b) sending an allocation signal indicating parameters including a particular coding rate, modulation type and at least one allocated timeslot to ones of the UEs in the first subset ~~having a pending downlink transmission~~;

(c) the UEs in the first subset ~~having a pending downlink transmission~~ setting up transmission characteristics based on the indicated parameters; and

(d) the UEs in the first subset ~~having a pending downlink transmission~~ receiving blocks of the downlink data from the base station in accordance with the parameters.

11. (original): The method of claim 10 wherein the blocks of data are distributed from the base station to the UEs on a prioritized basis.

12. (currently amended): The method of claim 10 further comprising:

(e) transmitting from the base station to the UEs in the first subset ~~having a pending downlink transmission~~, a request ~~for a~~ to begin downlink channel quality ~~measurement~~ measurements; and

(f) the UEs measuring and reporting the downlink channel quality to the base station, wherein the UEs are prioritized based on the downlink channel quality measurements.

13. (currently amended): A wireless digital communication system for optimizing data transmission, the system comprising:

(a) a base station; and

(b) a plurality of user equipment (UEs) in communication with the base station, wherein a first subset of the UEs have pending downlink transmissions and a

second subset of the UEs do not have pending downlink transmissions, each UE further comprising:

(b1) means for receiving a request from the base station ~~for a~~ to begin downlink channel quality ~~measurement~~ measurements if the respective UE belongs to the first subset, whereby the base station does not transmit a request to begin downlink channel quality measurements to the UEs in the second subset due to not having pending downlink transmissions;

(b2) means for measuring and reporting the ~~results of the~~ downlink channel quality ~~measurement~~ to the base station;

(b3) means for receiving a downlink physical channel allocation signal from the base station;

(b4) means for setting up transmission parameters based on the downlink physical channel allocation signal; and

(b5) means for receiving blocks of the downlink data from the base station in accordance with the set transmission parameters.

14. (currently amended): The system of claim 13 wherein the allocation signal indicates a particular coding rate, modulation type and at least one allocated time slot.